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EXAMINER

SCHLAIFER, JONATHAN D

ART UNIT	PAPER NUMBER
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2178

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/944,131

Applicant(s)

TISCHER, ROBERT

Examiner

Jonathan D. Schlaifer

Art Unit

2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133): Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-26 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/27/05.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to an amendment to application 09/944,131 filed on 1/27/2005.
2. Claims 1-26 are pending in the case. Claims 1, 19, and 23 are independent claims.
Claims 1, 15, 19, and 23 are amended.
3. The Information Disclosure Statement has been considered as copies of the NPL have been provided.
4. The objections to claims 15, 19, and 23 have been withdrawn as necessitated by the amendment.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-2, 8-9, and 13-14 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao (USPN 6,061,697—filing date 8/25/1997), further in view of Glowny (USPN 5,805,897—filing date 6/9/1995).**
6. **Regarding independent claim 1**, Nakao discloses a system for producing a distributed document having an ordered compilation of information (in the Abstract lines 1-10, Nakao discloses a distributed document accessing basis), the system comprising multiple fragment editor executables that function cooperatively as one implemented document type declaration (DTD) (in the Abstract lines 1-20, Nakao discloses that a DTD is managed). Nakao further discloses the system allowing multiple authors to edit the

distributed document contemporaneously while allowing each of the multiple authors to view edits made by others of the multiple authors contemporaneously (see Nakao col. 5, lines 5-25, if they can edit contemporaneously, they must be able to view edits contemporaneously). Nakao fails to disclose that said multiple fragment editor executables are distributed among multiple sites of a computer network and operate in a peer-to-peer environment without need for a central server. However, Glowny discloses the advantages of a peer-to-peer network over a centralized network as in Nakao in col. 4, line 60—col. 5, line 10. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a peer-to-peer network as in Glowny in combination with Nakao's invention because it would provide "flexibility without the cost and risks of a single server" (Glowny, col. 5, lines 1-2).

7. **Regarding dependent claim 2**, Nakao fails to disclose that replicates of the complete document reside at the multiple sites of the computer network. Glowny does not disclose this explicitly, but it was notoriously well known in the art at the time of the invention that it is common practice in a peer-to-peer network to back up documents at multiple points along the network to increase the reliability of the document storage.
8. **Regarding dependent claim 8**, Nakao and Glowny fail to disclose that the replicates reside in computer memory at the multiple sites of the computer network. However, it was notoriously well known in the art at the time of the invention that when data resides in a machine it must reside in some kind of memory or else it cannot be stored. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the replicates reside in memory so that they can be stored.

9. **Regarding dependent claim 9**, Nakao and Glowny fail to disclose that the replicates are persisted by writing to computer hard disks at the multiple sites of the computer network. However, it was notoriously well known in the art at the time of the invention that hard disks are a common means of persisting data because they are a cheap, fast means of persistent storage. It would have been obvious to one of ordinary skill in the art at the time of the invention to use hard disks to persist data in Nakao and Glowny because they are a cheap, fast means of persistent storage.
10. **Regarding dependent claim 13**, Nakao, in the Abstract, lines 1-30, discloses that the document on which the ordered compilation occurs is an SGML document.
11. **Regarding dependent claim 14**, Nakao and Glowny fails to disclose that the ordered compilation is an SGML document selected from the group consisting of XML and HTML. However, it was notoriously well known in the art at the time of the invention that XML and HTML were specific types of SGML documents which saw especially common use because they were useful as data encoding and web page documents and it would have been obvious to one of ordinary skill in the art at the time of the invention to have the SGML documents be XML or HTML documents so that they could serve as data encoding or web page documents.
12. **Claims 3-4 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao, further in view of Glowny, further in view of Appleman et al. (USPN 5,918,010—filing date 2/6/1998), hereinafter Appleman.**
13. **Regarding dependent claim 3**, Nakao and Glowny fail to disclose that an edit made by any one of the multiple authors is propagated among the replicates residing at the

multiple sites of the computer network. However, Appleman discloses in col. 9, lines 10-30, propagating edits. It would have been obvious to one of ordinary skill in the art at the time of the invention to propagate edits in the manner of Appleman in the context of Nakao and Glowny because as Appleman says in col. 9, line 30, it “greatly [increases] design and maintenance flexibility”.

14. **Regarding dependent claim 4**, Nakao and Glowny fail to wherein an edit made by any one of the multiple authors is immediately propagated among the replicates residing at the multiple sites of the computer network. However, Appleman implies that this would be the case for the edit propagation in the device because there is no delay mentioned and it was notoriously well known in the art at the time of the invention that unless there is a specific reason to delay performing a task, it should be performed immediately for the sake of efficiency. It would have been obvious to one of ordinary skill in the art at the time of the invention to perform the propagation immediately because there is no reason provided in Appleman to delay and as a result it would be most efficient to propagate immediately.

15. **Claims 5-6 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao, further in view of Glowny, further in view of Appleman, further in view of Yablon (USPN 5,764,731—filing date 1/26/1995).**

16. **Regarding dependent claim 5**, Nakao, Glowny, and Appleman fail to disclose that an edit made by any one of the multiple authors is delayed before being propagated among the replicates residing at the multiple sites of the computer network. However, Yablon discloses a delay due to relaying which allows progressive correction of a transmission.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have a delay due to relaying which would allow progressive correction of a transmission.

17. **Regarding dependent claim 6**, Nakao, Glowny, and Appleman fail to disclose that an edit made by any one of the multiple authors is relayed to intervening personnel, and thus is delayed, before being propagated among the replicates residing at the multiple sites of the computer network. However, Yablon discloses a delay due to relaying which allows progressive correction of a transmission. It would have been obvious to one of ordinary skill in the art at the time of the invention to have a delay due to relaying which would allow progressive correction of a transmission.
18. **Claim 7 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao, further in view of Glowny, further in view of Olson (USPN 6,802,022 B1—filing date 9/18/2000**
19. **Regarding dependent claim 7**, Nakao and Glowny fail to disclose that an edit made by any one of the multiple authors is propagated as an atomic transaction among the replicates residing at the multiple sites of the computer network. However, Olson discloses in col. 2, line 55—col. 3, line 5 that atomic transactions may be used to prevent the results of incomplete or partial transactions from subsequent loading. It would have been obvious to one of ordinary skill in the art at the time of the invention to use atomic transactions in conjunction with Nakao and Glowny's inventions in order to prevent the results of incomplete or partial transactions from subsequent loading.

- 20. Claims 10 and 12 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao, further in view of Glowny, further in view of Bays et al. (USPN 6,519,603 B1—filing date 10/28/1999), hereinafter Bays.**
- 21. Regarding dependent claim 10,** Nakao and Glowny fail to disclose that each author of the multiple authors is assigned an entity type having associated therewith corresponding executables that define the role an author can play in creating distributed document. However, Bays discloses in col. 3, lines 5-35 that the presence of executable data structures that define roles for an author in order to allow standardized structure of annotations. It would have been obvious to one of ordinary skill in the art at the time of the invention to define roles for an author in order to allow standardized structure of annotations.
- 22. Regarding dependent claim 12,** Nakao and Glowny fail to disclose that a subscriber can view edits made by one or more of the multiple authors. However, Bays discloses in col. 3, lines 5-35 that a reader (which is equivalent to a subscriber) can view edits made by the authors in order to give a level of credibility to annotations (col. 3, lines 20-25). It would have been obvious to one of ordinary skill in the art at the time of the invention to allow a subscriber to view edits to give a level of credibility to annotations.
- 23. Claims 11 and 15-26 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao, further in view of Glowny, further in view of Bays, further in view of Bannon et al. (USPN 5,297,279—filing date 5/30/1990), hereinafter Bannon.**
- 24. Regarding dependent claim 11,** Nakao and Glowny fail to disclose that the roles that an author may play in creating the distributed document include: root context author, context

author, and content author. However, Bays discloses the levels of context and content as being applicable to authorship, in order to regulate collaboration. It would have been obvious to one of ordinary skill in the art at the time of the invention to use levels of context and content as being applicable to authorship, in order to regulate collaboration. Furthermore, Bannon discloses the use of a root context level in order to organize hierarchical aspects of editing. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a root context level in order to organize hierarchical aspects of editing.

25. **Regarding dependent claim 15**, Nakao discloses (a)(ii) computer code for distribution through a communication medium to said root context author said executable code (Nakao is a distributed network application), (b)(v) computer code for propagating content changes from said root context author to all other replicate view nodes at author and subscriber sites (Nakao is a distributed network application), (b)(vii) computer code for distributing through a communication medium to said target node said root node associated executable code (Nakao is a distributed network application) (b)(ix) computer code for distributing through a communication medium to said target subscriber said subscriber executable code, (c)(xiv) computer code for propagating content changes from its own node to all other replicate view nodes at author and subscriber sites (Nakao is a distributed network application), (c)(xvii) computer code for distributing through a communication medium to said target node said associated executable code (Nakao is a distributed network application), (c)(xix) computer code for distributing through a communication medium to said target subscriber said subscriber executable code (Nakao

is a distributed network application), (d)(xiv) computer code for propagating content changes from its own node to all other replicate view nodes at author and subscriber sites (Nakao is a distributed network application), and (d)(xxvii) computer code for distributing through a communication medium to said target subscriber said subscriber executable code (Nakao is a distributed network application); but Nakao and Glowny fail to disclose a system comprising: (a) executable computer code for a root context author generator comprising: (i) computer code for creating root node associated executable code for at least one root context author wherein said root context author is editor type; (b) executable computer code for said root context author comprising: (iii) computer code for maintaining and updating a recordation of each node added to a document; (iv) computer code for creating an initial user interface wherein said user interface receives and displays the content of said document from other nodes and said interface enables said root context author to enter content edits in an assigned area of said document; (vi) computer code for creating root node associated executable code for at least one target node wherein the type of said target node is selected from the group consisting of a context author and a content author wherein said context author can administrate and is editor type and said content author is editor type; (viii) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type; (x) computer code for said administration wherein said administration comprises the ongoing granting and revoking of descendent node privileges, the ongoing configuration of descendent node user interfaces, and the ongoing configuration of descendent node supplementary computer code; (c) executable code for

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said context author wherein said context author comprises: (xii) computer code for maintaining and updating a recordation of each node added to a document; (xiii) computer code for a user interface wherein said user interface receives and displays the content of said document and said interface enables said context author to enter content edits in the assigned area of said document; (xv) computer code for responding to an administrative request; (xvi) computer code for creating node associated executable code for at least one target node wherein said target node is selected from the group consisting of a context author and a content author wherein said context author can administrate and is editor type and said content author is editor type; (xviii) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type; (xx) computer code for said administration wherein said administration comprises the ongoing granting and revoking of descendent node privileges, the ongoing configuration of descendent node user interfaces, and the ongoing configuration of descendent node supplementary computer code; (xxi) computer code for populating said document at startup; (d) executable code for said content author wherein said content author comprises: (xxii) computer code for maintaining and updating a recordation of each node added to a document; (xxiii) computer code for a user interface wherein said user interface receives and displays the content of said document and said interface enables said content author to enter content edits in the assigned area of said document; (xxv) computer code for responding to an administrative request; (xxvi) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type; (xxvii) computer code for distributing

through a communication medium to said target subscriber said subscriber executable code; (xxviii) computer code for populating said document at startup; (e) executable code for said subscriber wherein said subscriber comprises: (xxix) computer code for a user interface wherein said user interface receives and displays the content of said document; (xxx) computer code for responding to an administrative request; (xxxi) computer code for populating said document at startup. However, Bannon discloses (a) executable computer code for a root context author generator (in col. 19, lines 55-67, a root context author manager is described) comprising: (i) computer code for creating root node associated executable code for at least one root context author wherein said root context author is editor type (Bannon, in col. 19, lines 55-67, a root context author manager is described, it is inherently an editor because it changes the database); (b) executable computer code for said root context author comprising: (iii) computer code for maintaining and updating a recordation of each node added to a document (Bannon, in col. 19, lines 55-67, a root context author manager is described, it inherently updates to the database); (iv) computer code for creating an initial user interface wherein said user interface receives and displays the content of said document from other nodes and said interface enables said root context author to enter content edits in an assigned area of said document (Bannon, in col. 19, lines 35-55, a root context author manager is described, along with its interface functions); (vi) computer code for creating root node associated executable code for at least one target node wherein the type of said target node is selected from the group consisting of a context author and a content author wherein said context author can administrate and is editor type and said content author is editor type

(Bannon, in col. 20, lines 1-40, creation of the root context node involves a context author which is inherently a name manager (col. 19, lines 55-60) and hence can administrate); (xiii) computer code for a user interface wherein said user interface receives and displays the content of said document and said interface enables said context author to enter content edits in the assigned area of said document (Bannon, in col. 19, lines 35-55, a root context author manager is described, along with its interface functions; however, the interface elements would equally apply to a plain context author) (xxiii) computer code for a user interface wherein said user interface receives and displays the content of said document and said interface enables said content author to enter content edits in the assigned area of said document (Bannon, in col. 19, lines 35-55, a root context author manager is described, along with its interface functions; however, the interface elements would equally apply to a content author) and (ixxx) computer code for a user interface wherein said user interface receives and displays the content of said document (Bannon, in col. 19, lines 35-55, a root context author manager is described, along with its interface functions; however, the interface elements would equally apply to a subscriber). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Bannon with Nakao and Glowny because it would help to manage objects related to structured data. Furthermore, Bays discloses (viii) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type (col. 3, lines 5-35, Bays describes the reader position); (x) computer code for said administration wherein said administration comprises the ongoing granting and revoking of descendent node privileges, the ongoing

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configuration of descendent node user interfaces, and the ongoing configuration of descendent node supplementary computer code (col. 3, lines 5-35, Bays describes privileges management), (c) executable code for said context author wherein said context author comprises: (xii) computer code for maintaining and updating a recordation of each node added to a document (Bays, col. 3, lines 5-35, the nodes are retrieved so they must be recorded); (xv) computer code for responding to an administrative request (Bays, col. 3, lines 5-35, the invention describes an administrative hierarchy); (xvi) computer code for creating node associated executable code for at least one target node wherein said target node is selected from the group consisting of a context author and a content author wherein said context author can administrate and is editor type and said content author is editor type (Bays, col. 3, lines 5-35, the invention describes an administrative hierarchy for collaboration, so the authors can edit); (xviii) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type (Bays, col. 3, lines 5-35, describes a reader which is equivalent to a subscriber; (xx) computer code for said administration wherein said administration comprises the ongoing granting and revoking of descendent node privileges, the ongoing configuration of descendent node user interfaces, and the ongoing configuration of descendent node supplementary computer code (Bays, col. 3, lines 5-35, the invention describes an administrative hierarchy); (d) executable code for said content author wherein said content author comprises: (xxii) computer code for maintaining and updating a recordation of each node added to a document (Bays, col. 3, lines 5-35, the nodes are retrieved so they must be recorded); (xxv) computer code for responding to an

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administrative request(Bays, col. 3, lines 5-35, the invention describes an administrative hierarchy); (e) executable code for said subscriber wherein said subscriber comprises: (xxx) computer code for responding to an administrative request(Bays, col. 3, lines 5-35, the invention describes an administrative hierarchy). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Bays with Nakao, Glowny and Bannon because it would help to manage annotations for a structured document. Nakao, Glowny, Bannon, and Bays fail to disclose (xi), (xxi), (xxvi) (xxviii), and (xxxi) code for populating said document at startup, but it was notoriously well known in the art at the time of the invention that including code in a program for populating a document at startup is useful because it initializes the document with meaningful data. It would have been obvious to one of ordinary skill in the art at the time of the invention to include code for populating said document at startup because it would initialize the document with meaningful data. It was further known that read-only access is sometimes desirable to protect the integrity of a document, it would have been obvious to one of ordinary skill in the art at the time of the invention to use (xxvi) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type because it would have protected the integrity of a document.

26. **Regarding dependent claim 16**, it is a system that performs the same functions as the system of claim 15 with the added features of claim 13 and is rejected under similar rationale.

27. **Regarding dependent claim 17**, it is a system that performs the same functions as the system of claim 15 with the added features of claim 14 and is rejected under similar rationale.
28. **Regarding dependent claim 18**, the system of Nakao, as previously noted in the rejection to claim 1 and, as revealed in the Abstract lines 1-30, is a system that manipulates valid components of a DTD, and hence the nodes produced by the root context editor and context editor would be semantically valid parts of a DTD.
29. **Regarding independent claim 19**, it is a system that performs the same functions as the system of claim 15 and is rejected under similar rationale.
30. **Regarding dependent claim 20**, it is a system that performs the same functions as the system of claim 15 with the added features of claim 13 and is rejected under similar rationale.
31. **Regarding dependent claim 21**, it is a system that performs the same functions as the system of claim 15 with the added features of claim 14 and is rejected under similar rationale.
32. **Regarding dependent claim 22**, it is a system that performs the same functions as the system of claim 15 with the added features of claim 18 and is rejected under similar rationale.
33. **Regarding independent claim 23**, it is a method that performs the same functions as the system of claim 15 and is rejected under similar rationale.

34. **Regarding dependent claim 24**, it is a method that performs the same functions as the system of claim 15 with the added features of claim 13 and is rejected under similar rationale.

35. **Regarding dependent claim 25**, it is a method that performs the same functions as the system of claim 15 with the added features of claim 14 and is rejected under similar rationale.

36. **Regarding dependent claim 26**, it is a method that performs the same functions as the system of claim 15 with the added features of claim 18 and is rejected under similar rationale.

Response to Arguments

37. Applicant's arguments filed 1/27/2005 have been fully considered but they are not persuasive.

38. The Applicant asserts that *Nakao* and *Glowny* are not properly combinable. The Examiner's response to this allegation is that even *if* the inventions in their presented forms cannot be directly combined, a point which the Examiner does not concede, the teachings and principles provided by *Nakao* and *Glowny* would render the Applicant's invention obvious. *Nakao* teaches material related to distributed documents and *Glowny* teaches material related to peer-to-peer, and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine them in the manner set forth in the Office Action with the given motivation, and thereby satisfy the limitations of Claim 1.

39. The Applicant asserts that *Nakao* lacks contemporaneous editing. However, it is clear that because it is impossible to verify that two events occur at exactly the same time, it is reasonable to interpret contemporaneous to mean happening within a reasonable time interval of one another, which comprises *Nakao*'s definition.
40. Regardless of the technology used in parts of the invention, *Glowny* discloses information about the use of peer-to-peer networks that would have rendered usage of such technology obvious to one of ordinary skill in the art at the time of the invention. It would have additionally rendered obvious the limitations of multiple fragment editor executables and contemporaneous editing for the reasons stated immediately above and earlier in the Office Action.
41. The other claims are traversed on the basis of the traversal of claim 1. Since the Examiner maintains the rejection of claim 1, these traversals are also respectfully considered invalid.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 5,307,456 (filing date 1/28/1992)—MacKay

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan D. Schlaifer whose telephone number is (571) 272-4129. The examiner can normally be reached on 8:30-5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS



STEPHEN HONG
SUPERVISORY PATENT EXAMINER